

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

MANGOSOFT INTELLECTUAL  
PROPERTY, INC.,

Plaintiff,

v.

SKYPE TECHNOLOGIES SA, ET AL.,

Defendants.

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CIVIL ACTION NO. 2:06-CV-390

**MEMORANDUM OPINION AND ORDER**

After considering the submissions and the arguments of counsel, the court issues the following order concerning the claim construction issues:

**I. Introduction**

Plaintiff Mangosoft Intellectual Property, Inc. (“Mangosoft”) alleges defendants Skype Technologies SA, Skype Software SARL and eBay Inc. (collectively, “defendants”) infringe claims 8-14 of U.S. Patent No. 6,647,393 (“the ‘393 patent”). Claims 8 and 14 are independent claims, wherein claim 8 is a method claim and claim 14 is an apparatus claim. Claims 9-13 are dependent claims, which all depend from claim 8.

**II. Background of the Technology**

**A. The Dietterich Patent (the ‘393 patent)**

The ‘393 patent describes a directory service. Generally, directory services are programs that make information that is contained in computer directories available to users. The patent sets forth a wide range of examples of the types of directory information maintained by a directory service, such as network configuration information, user configuration information, network-accessible

resources and user account records. ‘393 Patent at 2:66-3:4; 4:60-66.

### **III. General Principles Governing Claim Construction**

“A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention.” *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999). Claim construction is an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

To ascertain the meaning of claims, the court looks to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. Under the patent law, the specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. A patent’s claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* “One purpose for examining the specification is to determine if the patentee has limited the scope of the claims.” *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee’s claims. Otherwise, there would be no need for claims. *SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). And, although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader

than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

This court's claim construction decision must be informed by the Federal Circuit's decision in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that "the *claims* of a patent define the invention to which the patentee is entitled the right to exclude." 415 F.3d at 1312 (emphasis added) (*quoting Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* The ordinary and customary meaning of a claim term "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention. The patent is addressed to and intended to be read by others skilled in the particular art. *Id.*

The primacy of claim terms notwithstanding, *Phillips* made clear that "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of "a fully integrated written instrument." *Id.* at 1315 (*quoting Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at 1314-17. As the Supreme Court stated long ago, "in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid

in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.

Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. The prosecution history helps to demonstrate how the inventor and the PTO understood the patent. *Phillips*, 415 F.3d at 1317. Because the file history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence. That evidence is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims.

*Phillips* rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Id.* at

1319-24. The approach suggested by *Texas Digital*—the assignment of a limited role to the specification—was rejected as inconsistent with decisions holding the specification to be the best guide to the meaning of a disputed term. *Id.* at 1320-21. According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of “focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of the claim terms within the context of the patent.” *Id.* at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.* What is described in the claims flows from the statutory requirement imposed on the patentee to describe and particularly claim what he or she has invented. *Id.* The definitions found in dictionaries, however, often flow from the editors’ objective of assembling all of the possible definitions for a word. *Id.* at 1321-22.

*Phillips* does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at 1323-25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant.

#### **IV. Terms in Dispute**

##### **A. Agreed Constructions**

As indicated during the claim construction hearing, the defendants no longer seek a construction for the phrase “selectively and dynamically migrate/[replicate] said directory parts based on the available resources on the network.” Therefore, the parties agree that this term carries its

plain and ordinary meaning.

**B. Disputed Constructions**

**1. “directory service”**

Mangosoft proposes that this term means “a service that provides directory information.” The defendants propose that this term means “a hierarchical structured storage mechanism for directory information that continually subdivides itself into smaller and smaller sections.”

The parties present two main disputes with respect to the construction of this term. Both disputes involve the defendants’ proposal to impose additional limitations, specifically, “hierarchical structured” and “continually subdivides itself into smaller and smaller sections.”

The defendants support their construction by citing to the following passage of the specification:

It should be appreciated that the directory service of the invention comprises a hierarchical structured storage mechanism for directory information. To this end, the directory service of the invention provides a structure that continually subdivides itself into smaller and smaller sections.

‘393 Patent at 12:35-39. According to the defendants, “[t]his is plainly definitional language, and a person of ordinary skill in the art would understand it as such.” Defs.’ Resp. Br. at 5 (citing Dahlin Decl. at 6:14-22).

Mangosoft notes that the defendants’ proposed construction isolates only one of approximately thirty instances of the specification reciting “according to the invention.” The defendants respond the “the pervasive characterization of the directory service of the invention should bind Mangosoft.” Defs.’ Resp. Br. at 8 (citing *Honeywell Intern., Inc. v. ITT Industries, Inc.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006) (the term “fuel injection system component” was limited to

a fuel filter, in part, because “[o]n at least four occasions, the written description refers to the fuel filter as ‘this invention’ or ‘the present invention.’”)).

With respect to the “hierarchical structure,” Mangosoft argues that the term “directory service” is broader than just a hierarchical system. The only limitation claim 8 puts on the directory service at the outset is that it be “distributed.” ‘393 Patent at 14:18. When the patentees wanted to more specifically describe the directory service, they did so. For instance, the specification recites a “hierarchical distributed dynamic directory service.” *Id.* at 7:35-36. According to Mangosoft, this indicates that the patentees did not intend to have the term “directory service” limited only to a hierarchical structure.

Mangosoft further argues that “[t]he specification discloses alternative structures that do not contemplate continuously subdividing the directory service to obtain directory information. One such structure is a graph. *See* Ex. A at 6:58-61.” Mangosoft’s Opening Br. at 10. The specification states “set 66 thus is a collection of directory information organized hierarchically, for example as a tree structure or as a graph . . . .” ‘393 Patent at 6:58-60. This passage clearly includes *both* tree structures and graphs as a hierarchical organization, and cuts directly against Mangosoft’s argument with respect to the “hierarchical structure.” With respect to the “continually subdivides itself into smaller and smaller sections,” Mangosoft argues that “[a] graph is a directory structure that allows information in a directory to be accessed across various paths in the directory.” Mangosoft’s Opening Br. at 10 (citing Alexander Decl. at ¶ 33). And that “[o]ne of ordinary skill in the art would appreciate that a directory service structured as a graph need not continually subdivide itself to locate directory information.” *Id.* (citing Alexander Decl. at ¶ 35).

The defendants argue that the prosecution history of the ‘393 patent is consistent with their

definition of “directory service.” Their argument is that “although Mangosoft did argue that the claimed invention of the ‘393 patent was different from the ‘903 patent [prior art patent, United States Patent No. 5,608,903, issued to Prasad et al. (“Prasad”)], it did not deny that the ‘393 patent’s directory service had a hierarchical tree structure in the same way as the ‘903 patent.” Defs.’ Resp. Br. at 6-7 (citing Lee Decl., Exh. 5 at MIP0000367 [May 19, 2003 Amendment]). In essence, the defendants are asking this court to give weight to the applicants’ silence in response to an office action. The court declines to do so in this instance.

The defendants further argue that Mangosoft “offers what amounts to a non-construction” and that this is inappropriate as the term “directory service” “did not have a commonly-accepted meaning to one of skill in the art in 1997.” Defs.’ Resp. Br. at 3-4 (citing Dahlin Decl. at 5:17-24). The defendants then note that the inventors that have been deposed in this case thus far were “unable to identify any accepted definitions of “directory service.” The inventors’ testimony, however, is of little probative value and need not be considered if the intrinsic evidence supports a construction. *See E-Pass Technologies, Inc. v. 3Com Corp.*, 343 F.3d 1364, 1370 n.5 (Fed. Cir. 2003) (“As to the cited inventor testimony, this court has often repeated that inventor testimony is of little probative value for purposes of claim construction. *See, e.g., Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1379 (Fed.Cir.2000)).

The court rejects the defendants’ proposal to limit the term “directory service” to a structure that “continually subdivides itself into smaller and smaller sections.” The limitation of a “hierarchical structured” system, however, is supported by the intrinsic record. The specification, and all embodiments described therein, evidence that the directory services of the invention relate to a hierarchical structure. Therefore, this term means “a service that provides hierarchical structured

directory information.”

**2. “installing on each of the nodes a directory service program”/“each of the computers having a directory service program installed thereon”**

This term appears in claims 8 and 14. While it is phrased differently in the two claims, the parties each advance a construction applicable to both phrases. Mangosoft proposes that no construction is necessary, but, if the court decides to construe the claim, then it proposes that these phrases mean “to set up a directory service program for use or service on each of the nodes.” The defendants propose that these phrases mean “installing a directory service program that resides and executes on every one of the network nodes to operate the directory service and to maintain directory information and employ all of the network nodes for storing and allowing access to the directory information.”

Mangosoft argues that the defendants’ construction ignores the plain language of the claim. Specifically, Mangosoft argues that the defendants’ proposal ignores the antecedent basis for the term “each of the nodes.” Mangosoft’s Opening Br. at 13. By the use of “the,” the claim indicates that the nodes of this disputed phrase are introduced earlier in the claim: “providing a plurality of nodes.” ‘393 Patent at 14:16-17. Thus, according to Mangosoft, the nodes on which the directory service program are installed are the “plurality of nodes,” not “each of the network nodes” as argued by the defendants.

This argument collapses when the claim is read as a whole. *See Hockerson-Halberstadt, Inc. v. Converse Inc.*, 183 F.3d 1369, 1374 (Fed. Cir. 1999) (“[p]roper claim construction, however, demands interpretation of the entire claim in context, not a single element in isolation”). The language in the asserted claims makes clear that every one of the computer nodes on the network has

a copy of the directory service program installed upon it. Asserted claim 8 explicitly requires “installing on each of the nodes a directory service program,” ‘393 Patent at 14:20-21, and asserted claim 14 explicitly requires “each of the computers having a directory service program installed thereon,” ‘393 Patent at 14:65-66. Furthermore, the specification is replete with support for the proposition that every node, not just a subset of the nodes, has the directory service program installed. *See, e.g.*, ‘393 Patent at 4:17-18 (“providing a directory service on the network by installing on each of the nodes a directory service program”); 4:66-5:1 (“[e]ach of the nodes on the network include at least a directory service program”); 5:3-5; 12:53-56; and Fig. 1. As such, the court agrees with the defendants that the directory service program is installed on each and every node in the network.

Turning to the defendants’ proposal that not only must the directory service program be installed but it must also “reside and execute” on the nodes. This is an unsupportable attempted to read a preferred embodiment into the claims. The specification clearly identifies the “reside and execute” feature as an embodiment: “In one embodiment, an instance of a directory service program resides and executes on each of the network nodes.” ‘393 Patent at 12:50-54 (emphasis added).

Finally, the defendants argue that this term should be further limited to “operate the directory service and to maintain directory information and employ all of the network nodes for storing and allowing access to the directory information.” As with “reside and execute,” this is an attempt to improperly limit the claim scope to a preferred embodiment.

For these reason, these phrases mean “installing a directory service program on each and every one of the network nodes.”

**3. “directory parts to be selectively and dynamically migrated/[replicated] between one of said nodes/[plurality of computers]”**

Mangosoft proposes that this phrase means “selectively, but not statically, making a particular element or elements of the directory usable on different nodes on the network.” The defendants propose this phrase means “the directory service program makes a decision to migrate/replicate the directory parts from one node only to a second node based on specified patterns” where “migrated” means “moved; not replicated (i.e., not copied)” and “directory parts” means “sections of the directory service.”

Mangosoft first takes issue with the defendants’ proposal to construe “migrated.” Its argument is based solely on extrinsic evidence, specifically the declaration of its expert, Peter Alexander, Ph.D. According to Mangosoft, “when computer applications are migrated, the system is agnostic as to whether files were deleted or not.” Mangosoft’s Opening Br. at 18 (citing Alexander Decl. at ¶ 48). Mangosoft further argues that the defendants’ proposal of defining a term with a negative limitation is disfavored. *See Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1329, 1332-33, 1335 (Fed.Cir.2003).

The defendants respond by pointing out that the ‘393 patent specification draws a distinction between “migrate” and “replicate”: “In accordance with the invention, and as described more fully below, all this information can reside physically on different nodes and in fact can migrate from node to node and can be replicated on a plurality of network nodes.” ‘393 Patent at 7:29-34, *see also id.* at 9:51-53 (“the records and the copies of the records move or migrate among the various network nodes”); and 9:20-21 (“the directory service can store a copy of (replicate) this directory information”). According to the defendants, a “person of ordinary skill in the art would understand

from this passage that migrate is a movement from one node and to a second node, whereas replication involves creating a copy of the information on more than one node (i.e., on a ‘plurality’ of nodes).” Defs.’ Resp. Br. at 16 (citing Dahlin Decl. at 13:14-16) (emphasis in original).

The court concludes that the term “migrate” does not encompass replication or copying. Rather, it requires a change of the location of a directory part.

Mangosoft argues that the term “directory parts” should be construed to mean “element or elements of the directory.” To support its construction, Mangosoft notes that the patent describes “storing a particular element or elements of the directory services” on a node. ‘393 Patent at 5:3-5. Mangosoft further argues that the defendants’ proposed use of the term “sections” is unsupported by the patent. Mangosoft’s Opening Br. at 19. The court agrees. Mangosoft’s construction of “element or elements of the directory” is supported by the intrinsic record.

The final dispute between the parties with respect to this phrase is the meaning of the term “selective and dynamic.” This phrase replaced the term “automatically” to overcome an examiner’s rejection in light of a prior art reference, United States Patent No. 5,649,194 (“Miller”). Mangosoft’s Opening Br. at 19. In response to the rejection, the applicant stated:

... This distributed directory service has been designed to optimize performance by selectively and dynamically migrating the directory services to at least one node in response, e.g., to network usage and access patterns. Thus, efficiency is maximized by not statically migrating the directory to all nodes. Further, if a node’s directory changes, the present invention does not statically reconcile the differences with the directory of all other nodes.

Miller neither suggests or describes selectively and dynamically migrating directory information to at least one node and to store thereon a directory, such that the directory is not statically replicated to all nodes of the plurality of nodes in a network, as recited in new claims 17, 23, 24 and 30. Further, Miller neither suggests or describes selectively and dynamically replicating or migrating the directory information based on the number of accesses of the directory services by each node, as recited in new claims 19, 21, 26 and 28. In addition, Miller neither suggests of

describes selectively and dynamically replicating or migrating the directory information based on available resources on the network, as recited in new claims 20, 22, 27 and 29.

*Id.* at Ex. C [MIP 0000339]. Mangosoft argues that “[s]electively needs no further definition and dynamically should be given its commonly-understood meaning, not statically, to capture the import of the intrinsic evidence.” *Id.* at 20.

The defendants argue that “selectively and dynamically” requires that the directory service program makes a decision to migrate or replicate directory parts, i.e. not automatically. This construction is supported by the specification as well as the prosecution history cited above. *See e.g.*, 2:61-65 (“replicate and move data dynamically in response to network activity levels and access patterns”). Mangosoft’s argument that this phrase does not need to be construed would allow the patentee to potentially recapture claim scope that was unequivocally surrendered during prosecution, i.e. an automatic migration or replication of directory parts.

For these reasons, the phrase “directory parts to be selectively and dynamically migrated/[replicated] between one of said nodes/[plurality of computers]” should be construed to mean “element or elements of the directory, which the service program decides based on a selection or decision, to migrate/replicate to one of said nodes/[plurality of computers].” Where “migrating” means “changing the location of a directory part.”

**4. “selectively and dynamically migrate/[replicate] said directory parts based on the number of accesses of the directory service by each of the nodes”**

Mangosoft argues that this term does not need construction, but in the alternative that the term “accesses” means “read or write.” The defendants propose that this term mean “directory parts are migrated/[replicated] to nodes that most often access those directory parts and not to nodes that

access the directory service less often or not at all.”

The defendants argue that Mangosoft’s proposal is overly-broad and an attempt to recapture a system that migrates with every access. The defendants’ proposal finds support in the specification:

In accordance with the invention, this replication feature of the directory service results in certain records being replicated on the nodes that most often access those records and not being replicated on (and/or removed from) nodes that access those records less often or not at all.

‘393 Patent at 9:44-47. This section, however, describes an embodiment of the invention as the paragraph containing the above-cited passage begins with “[i]n one embodiment . . . .” *Id.* at 9:33. A reading of the defendants’ construction, specifically the use of the relative phrases of “more often” and “less often,” imply that the claim requires an undefined threshold value (i.e. if the number of accesses is greater than a certain amount then it will replicate that record, but not replicate it if the number of accesses is below a certain amount). The claim language, read in light of the specification, does not support the defendants’ attempt to create a threshold for replication.

For these reasons, the court rejects the defendants’ proposed construction. The court concludes that the phrase “selectively and dynamically migrate/[replicate] said directory parts” contained in this term shall be construed consistent with the language in the previous term, i.e. “element or elements of the directory, which the service program decides based on a selection or decision, to migrate/replicate.” The court declines to construe the remainder of this term.

#### **5. “without requiring restructuring the directory”**

Mangosoft proposes that this term means “without the need to restructure the directory.” The defendants propose this term is indefinite, or in the alternative that it means “no restructuring of any

kind is permitted in the directory.”

As an initial matter, this term is not insolubly ambiguous as to defy construction. *See, e.g., Young v. Lumenis, Inc.*, 492 F.3d 1336, 1346 (Fed. Cir. 2007). The defendants argue that because this term “appears nowhere in the specification and is never defined anywhere, including the file history . . . it is hopelessly ambiguous and should be found to be indefinite.” Defs.’ Resp. Br. at 21. While it is true that the term does not appear in the written description, the applicant responded to an examiner’s rejection by amending the claim and providing the Patent Office with its reasoning. The prosecution history is sufficient to support a construction. *Cf. Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1372 (Fed. Cir. 2004) (“A claim is not indefinite merely because it poses a difficult issue of claim construction; if the claim is subject to construction, i.e., it is not insolubly ambiguous, it is not invalid for indefiniteness.”).

The parties only remaining dispute is to what extent the applicants surrendered restructuring. This term, “without requiring restructuring the directory,” was added during prosecution to overcome a rejection based on the Prasad reference. In this amendment, Mangosoft argued that the Prasad reference required that the structure of the directory was changed in response to changes in directory information, while the invention of the ‘393 patent does not require a similar change. Brief at Ex. C [MIP 0000366-67 (May 19, 2003 Response to Office Action)] (“the invention allows migrating a part of a directory, e.g., between nodes or computers, without requiring a permanent change to the structure or organization of the directory”).

The issue thus boils-down to whether the phrase “without requiring” in the context of this amendment means that no restructuring can occur during a migration. Mangosoft’s position is that restructuring can occur, provided that it is not necessary, or required. The defendants response is

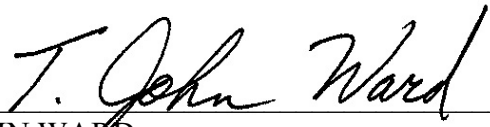
that the applicant surrendered any migration in which the part of the directory service is restructured.

The court concludes that the applicant only surrendered a directory service that always performs restructuring during a migration. Therefore, this term means “without the need to restructure the directory.”

**V. Conclusion**

The court adopts the constructions set forth in this opinion for the disputed terms of the ‘393 patent. The parties are ordered that they may not refer, directly or indirectly, to each other’s claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the court.

SIGNED this 14th day of August, 2008.

  
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T. JOHN WARD  
UNITED STATES DISTRICT JUDGE